

# Using LeadCare® II Analyzers

### **Supplies Needed for Testing**

\*Ensure all products are lead free

- LeadCare® II Test Kit
- Sterile lancet
- Gauze pads
- · Bio-hazard container
- Disposable gloves
- Band-aids
- Absorbent cover for supplies to be placed on
- Soap and water (to clean collection site)

### **Calibrating**

Calibrate your analyzer to the lot number in use per manufacturer instructions.

### Calibrate with key and button

- The first time you use the analyzer
- Each time you use a new test kit
- When the analyzer displays a recalibration message

# **Collecting Capillary Specimens for Lead**

## Personal, Patient, and Area Prep

- Designate a clean work area dedicated to blood lead testing.
- 2. Handwashing is required for both the patient and person administering the test. Alcohol swabs do not remove lead.
- 3. If a sink is not available, a soap and water solution dispensed from a goose-neck squirt bottle may be used to thoroughly rinse designated finger.
- 4. Once hands are washed, put on disposable gloves before collecting a sample.
- 5. If collecting samples for multiple tests, always collect the lead test sample first.

#### **Testing**

- 1. Scrub area to be punctured with soap and water. If water is not available, thoroughly rinse designated finger with soap and water solution dispensed from a goose-neck squirt bottle. (Note: Alcohol swabs do not remove lead.)
- 2. Clean area to be punctured with the alcohol pad.
- 3. Using a lancet, puncture the finger pad to the side of the center.
- 4. Allow the first drop of blood to fall onto the gauze pad. Avoid wiping the blood away to avoid contamination.

Continue on next page.

#### **Testing Continued**

- 5. Hold the heparinized capillary tube almost horizontally, with the green band on top, and fill to the 50  $\mu$ L black line. Filling stops when the blood reaches the black line. Be sure to avoid touching the skin with the tube when collecting the sample.
- 6. Remove the excess blood from the outside of the tube with a clean gauze pad. Use a downward motion to wipe excess blood from the capillary tube.
- 7. Dispense blood sample into treatment reagent vial. Invert the treatment reagent/blood mixture 8-10 times to mix the blood.
- 8. Insert a sensor into the LeadCare® II Analyzer until it beeps. Use transfer dropper to deposit sample onto the "X". The test will automatically begin. After 3 minutes, the analyzer will beep again to indicate the test is done. Record the result on the display window.
- 9. "Low" in the display window indicates a result less than 3.3 µg/dL.
- 10. Each case of lead poisoning must be reported to the Idaho Department of Health and Welfare or the local public health district within 3 days of identification of the case when determined by symptoms or a blood lead of five micrograms or more per deciliter (5.0  $\mu$ g/dL) of blood in children under eighteen (18) years of age.

#### **Disposal**

Refer to your local regulations and facilities guidelines for proper waste disposal.

## **Confirm with Venous Test**

Refer to the <u>Idaho Lead Risk Assessment and Blood Lead Testing Recommendations</u> for confirmatory and follow-up blood lead testing tables for children identified with lead in their blood.



# **Troubleshooting for LeadCare® II Analyzers**

## Common issues, retesting, and information on venous confirmations

Child less than 1 year old	Do a heel puncture. If difficulty arises with obtaining a specimen from the heel, use the large toe.
Unexpected results	<ul> <li>Please refer to the Troubleshooting section of your LeadCare® II User's Guide.</li> <li>Ensure quality controls have been run and the analyzer has been calibrated to the lead test kit lot number in use.</li> <li>Elevated results may result from sample contaminated with lead from skin's surface. Proper handwashing with soap and water is critical first step during the collection procedure.</li> <li>Result of 45 mcg/dL or greater (including HIGH result on analyzer).</li> <li>Wash hands again with soap and water.</li> <li>Re-test with a new, second specimen.</li> <li>Specimen may have had clotted blood.</li> <li>The analyzer has been transported and has not warmed up to room temperature.</li> <li>Mix blood with treatment reagent immediately, and run test within 48 hours, or refrigerate for up to 7 days.</li> </ul>
Any result equal to or exceeding 3.5 mcg/dL or uncertainty in validity of the test	<ul> <li>Notify the ordering provider of the results.</li> <li>Refer patient for confirmatory venous testing. All elevated capillary blood lead levels must be confirmed with a venous blood lead level.</li> </ul>
If receiving a continuous error message	Contact LeadCare® II Analyzer Product Support at 1-800-275-0102.
Things to Remember	<ul> <li>Run controls according to manufacturer instructions.</li> <li>The accuracy of the test depends on handwashing prior to sample collection and filling the capillary tube properly.</li> </ul>



#### For additional information contact:

Idaho Department of Health and Welfare Environmental Health Program Childhood Lead Poisoning Prevention Program

email: eh@dhw.idaho.gov

phone: 800-455-8647

Website: healthandwelfare.idaho.gov/lead-poisoning



**Health Specialty Units** 



